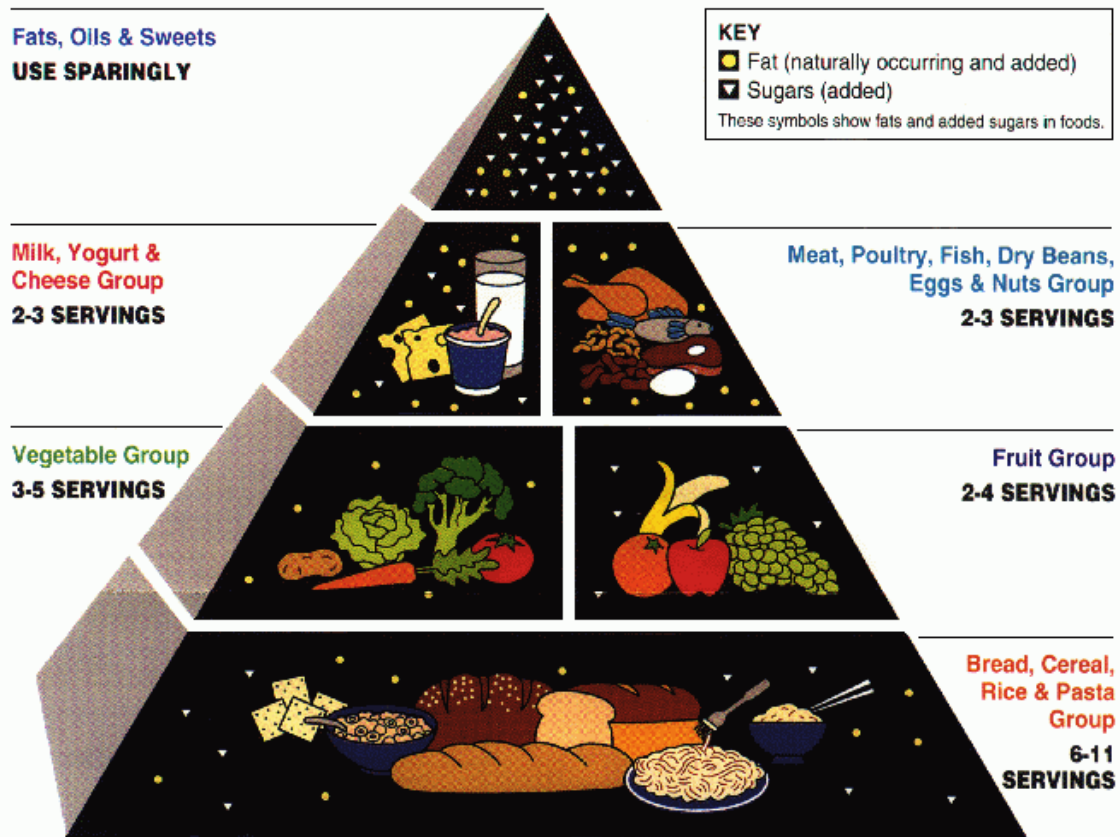


Reserve Component Physical Training Program



Build a healthy base by eating a variety of foods. Different foods contain different nutrients and other healthful substances. No single food can supply all the nutrients in the amounts you need. To make sure you get all the nutrients and other substances you need for health, build a healthy base by using the Food Guide Pyramid (Figure 1) as a starting point. Choose the recommended number of daily servings from each of the five major food groups.

Figure 1. The Food Guide Pyramid

Breads, Cereals, Rice, and Pasta Group: Foods made from grains (wheat, rice, and oats) should form the foundation of a nutritious diet. They provide vitamins, minerals, carbohydrates (starch and dietary fiber), and other substances that are important for good health. Grain products are low in fat, unless fat is added in processing, in preparation, or at the table. Whole grains differ from refined grains in the amount of fiber and nutrients they provide, and different whole grain foods differ in nutrient content, so choose a variety of whole and enriched grains. Eating plenty of whole grains, such as whole wheat bread or oatmeal may help protect you against many chronic diseases. You should consume at least 6-11 servings daily from the base of the pyramid.

Consuming the recommended daily intake is not difficult if you understand serving sizes. A $\frac{1}{2}$ cup of cooked rice, cereal, or pasta is about the same size as your fist. The best choices from this food group are bran cereals, oat bran, low fat bagels (pumpernickel, rye, whole wheat), whole grain muffins (bran, corn and oat bran), whole grain breads and rice, and stoned wheat and whole grain crackers.

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Vegetable Group: The vegetable group is one area where many people regularly fail to consume enough. Vegetables are nature's vitamins. To ensure that you get essential vitamins and minerals, you should strive for 3-5 servings per day from this group. A serving size of raw or cooked vegetables is only $\frac{1}{2}$ cup, and most people eat more. One cup of leafy raw vegetables is also a serving size, which is much smaller than the regular salad served with a restaurant dinner. A $\frac{1}{2}$ cup of vegetables is about the size of a tennis ball. To maximize the vitamin and mineral content of your vegetables, don't overcook. Cook in a microwave, steamer, or wok only until tender crisp. The lighter colored vegetables, such as cucumbers, iceberg lettuce, and celery are mostly fiber and water with very little calories, vitamins, or minerals. Choose dark green, orange, and yellow vegetables. The darker the vegetable, the more likely it is to have large amounts of vitamins and minerals. A variety of different vegetables should be consumed to ensure that you receive a variety of nutrients. Broccoli, spinach, green peppers, tomatoes, cauliflower, Brussels sprouts, collards, carrots, or winter squash are the best choices. A $\frac{3}{4}$ cup of vegetable juice also constitutes a serving from this group.

Fruit Group: The fruit group, in addition to providing vitamins and minerals, also provides fiber. Two to four servings of fruits are recommended each day. Breakfast is a good opportunity to eat some fruit. Drinking a glass of fruit juice for breakfast is a convenient way to get half of the minimum daily servings. Other good choices are citrus fruits, bananas, cantaloupe, kiwi, strawberries, and dried fruit. A serving size for the fruit group is one piece of medium sized fruit or melon wedge, or a $\frac{1}{2}$ cup of chopped, canned, or cooked fruit. A $\frac{1}{2}$ cup of fruit is about the same size as a tennis ball. If you choose fruit juice, make sure that it is not mostly sugar and contains a good amount of vitamins and minerals. A $\frac{3}{4}$ cup of fruit juice equals one serving. Juice that you can see through (apple, grape, or cranberry juice) usually contains more processed sugar than one that you cannot see through (orange juice, peach nectar, or prune juice).

Milk, Yogurt, and Cheese Group: These dairy products are a great source of protein, vitamins, and minerals (fortified by law) especially calcium and riboflavin. The milk group, however, can also contain a large amount of fat. Many no-fat or low-fat dairy products are available, including cheese, milk, sour cream, and yogurt. Top choices are 1% or skim milk, low-fat cheese, and yogurt. The recommended number of servings per day for this group is 2-3, and is easily attainable for most soldiers. One cup of milk or yogurt, a $\frac{1}{2}$ cup of natural cheese (Cheddar or Swiss), or 2 ounces of processed cheese (American) is considered a serving size. 1 ounce of cheese is about the size of four dice.

Meat, Poultry, Fish, Dry Beans, Eggs, and Nuts Group: The Meat and Beans Group is very important for obtaining protein, vitamins, and minerals. Like the milk group, this group can contain large amounts of fat as well. Quick and easy choices include canned tuna, chicken, peanut butter, lentil soup, and beans. Two to three servings from this group are required each day. Most people are at one extreme or the other by consuming too much or not enough from this group. The serving sizes typically consumed greatly exceed the nutritional requirement. For example, a typical chicken breast (8 oz) equals 2 servings (and about 50 grams of protein) while the 16-ounce steak at your favorite restaurant equals 4 servings (and about 120 grams of protein) from this group. A serving size of cooked fish, poultry, or red meat is 2 to 3 ounces (the size of a regular deck of playing cards), a $\frac{1}{2}$ cup of cooked dry beans, a 2 $\frac{1}{2}$ ounce soyburger, 1 egg, 2 tablespoons of peanut butter, or $\frac{1}{3}$ cup of nuts.

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Fats, Oils, and Sweets Group: At the top of the food pyramid are the items that should be eaten in moderation. However, it does not mean that you should never eat these items. Most fats and sugars are nutrient poor. Foods from this group should be chosen in moderation because they often replace nutrient dense foods, so you may not get your daily requirement for the essential nutrients. For this reason, they are referred to as “empty” calories. This means that they provide nothing to the body except calories; no vitamins, minerals, fiber, water, or protein. Foods from this group are still an important part of a performance diet. Sweets add taste and flavor, while fat provides essential fatty acids like linoleic acid (part of every cell membrane), which can’t be made by the body. A better food preparation choice is baking, roasting, or grilling, however, frying food in fat (cooking oil) once in a while is all right. Top choices from this group include olive oil, walnuts, molasses, berry jams, or a favorite dessert. There are no suggested servings for the top of the pyramid because you always have plenty of opportunity to add these to their diet without even trying.

Choose natural or less processed foods whenever possible. An apple is a better choice than applesauce, which is a better choice than apple juice, which is a better choice than apple pie. A baked potato is a better choice than mashed potatoes, which is a better choice than potato chips. Whole grain (wheat) bread is usually a better choice nutritionally than white bread. Food processing tends to remove vitamins, minerals, and fiber and add undesirable or questionable additives.

Your pattern of eating is also important. Snacks and meals eaten away from home provide a large part of daily calories for many people. Choose them wisely. Try fruits, vegetables, whole grain foods, or a cup of low-fat milk or yogurt for a snack. When eating out, choose small portions of foods. If you choose fish, poultry, or lean meat, ask that it be grilled rather than fried. Also, notice that many of the meals and snacks you eat contain items from several food groups. For example, a sandwich may provide bread from the grains group, turkey from the meat and beans group, and cheese from the milk group.

C. Choose Sensibly...

The carbohydrates, fats, and proteins in food supply energy, which is measured in calories. High-fat foods contain more calories than the same amount of other foods, so they can make it difficult for you to avoid excess calories. However, low fat doesn't always mean low calorie. Sometimes extra sugars are added to low-fat muffins or desserts, for example, and they may be just as high in calories.

Fats supply energy and essential fatty acids, and they help absorb the fat-soluble vitamins A, D, E, and K, and carotenoids. You need some fat in the food you eat, but choose sensibly. Some kinds of fat, especially saturated fats, increase the risk for coronary heart disease by raising the blood cholesterol. In contrast, unsaturated fats (found mainly in vegetable oils) do not increase blood cholesterol. Fat intake in the United States as a proportion of total calories is lower than it was many years ago, but most people still eat too much saturated fat. Eating lots of fat of any type can provide excess calories. The Nutrition Facts Label will state the number of grams of fat and sugar as well as protein, fiber, and sodium.

Saturated Fats: Foods high in saturated fats tend to raise blood cholesterol. These foods include high-fat dairy products (like cheese, whole milk, cream, butter, and regular ice cream), fatty

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fresh and processed meats, the skin and fat of poultry, lard, palm oil, and coconut oil. Keep your intake of these foods low.

Dietary Cholesterol: Foods that are high in cholesterol also tend to raise blood cholesterol. These foods include liver and other organ meats, egg yolks, and dairy fats.

Trans Fatty Acids: Foods high in trans fatty acids tend to raise blood cholesterol. These foods include those high in partially hydrogenated vegetable oils, such as many hard margarines and shortenings. Foods with a high amount of these ingredients include some commercially fried foods and some bakery goods.

Unsaturated Fats: Unsaturated fats (oils) do not raise blood cholesterol. Unsaturated fats occur in vegetable oils, most nuts, olives, avocados, and fatty fish like salmon. Unsaturated oils include both monounsaturated fats and polyunsaturated fats. Olive, canola, sunflower, and peanut oils are some of the oils high in monounsaturated fats. Vegetable oils such as soybean oil, corn oil, and cottonseed oil and many kinds of nuts are good sources of polyunsaturated fats. Some fish, such as salmon, tuna, and mackerel, contain omega-3 fatty acids that are being studied to determine if they offer protection against heart disease. Use moderate amounts of food high in unsaturated fats, taking care to avoid excess calories.

Following the tips listed below will help you keep your intake of saturated fat at less than 10 percent of your total calories:

Fats and Oils

- Choose vegetable oils rather than solid fats (meat and dairy fats, shortening).
- If you need fewer calories, decrease the amount of fat you use in cooking and at the table.

Meat, Poultry, Fish, Shellfish, Eggs, Beans, and Nuts

- Choose 2 to 3 servings of fish, shellfish, lean poultry, other lean meats, beans, or nuts daily. Trim fat from meat and take skin off poultry. Choose dry beans, peas, or lentils often.
- Limit your intake of high-fat processed meats such as bacon, sausages, salami, bologna, and other cold cuts. Try the lower fat varieties (check the Nutrition Facts Label).
- Limit your intake of liver and other organ meats.
- Use egg yolks and whole eggs in moderation. Use egg whites and egg substitutes freely when cooking since they contain no cholesterol and little or no fat.

Dairy Products

- Choose fat-free or low-fat milk, fat-free or low-fat yogurt, and low-fat cheese most often. Try switching from whole to fat-free or low-fat milk. This decreases the saturated fat and calories but keeps all other nutrients the same.

Prepared Foods

- Check the Nutrition Facts Label to see how much saturated fat and cholesterol are in a serving of prepared food. Choose foods lower in saturated fat and cholesterol.

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Foods at Restaurants or Other Eating Establishments

- Choose fish or lean meats as suggested above. Limit ground meat and fatty processed meats, marbled steaks, and cheese.
- Limit your intake of foods with creamy sauces, and add little or no butter to your food.
- Choose fruits as desserts most often.

Choose beverages and foods that moderate your intake of sugars.

Sugars are carbohydrates and a source of energy (calories). Dietary carbohydrates also include the complex carbohydrates starch and dietary fiber. During digestion all carbohydrates except fiber break down into sugars. Sugars and starches occur naturally in many foods that also supply other nutrients. Examples of these foods include milk, fruits, some vegetables, breads, cereals, and grains.

Added sugars

Added sugars are sugars and syrups added to foods in processing or preparation, not the naturally occurring sugars in foods like fruit or milk. The body cannot tell the difference between naturally occurring and added sugars because they are identical chemically. Foods containing added sugars provide calories, but may have few vitamins and minerals. In the United States, the number one source of added sugars is nondiet soft drinks (soda or pop). Sweets and candies, cakes and cookies, and fruit drinks and fruitades are also major sources of added sugars. Intake of a lot of foods high in added sugars, like soft drinks, is of concern. Consuming excess calories from these foods may contribute to weight gain or lower consumption of more nutritious foods. Some foods with added sugars, like chocolate milk, presweetened cereals, and sweetened canned fruits, also are high in vitamins and minerals. These foods may provide extra calories along with the nutrients and are fine if you need the extra calories.

Choose and prepare foods with less salt.

You may be able to reduce your chances of developing high blood pressure by consuming less salt. There is no way to tell who might develop high blood pressure from eating too much salt. However, consuming less salt or sodium is not harmful and can be recommended for the healthy, normal person. At present, the firmest link between salt intake and health relates to blood pressure. High salt intake also increases the amount of calcium excreted in the urine. Eating less salt may decrease the loss of calcium from bone. Loss of too much calcium from bone increases the risk of osteoporosis and bone fractures. Salt is found mainly in processed and prepared foods. Salt (sodium chloride) is the main source of sodium in foods. Only small amounts of salt occur naturally in foods. Most of the salt you eat comes from foods that have salt added during food processing or during preparation in a restaurant or at home. Some recipes include table salt or a salty broth or sauce, and some cooking styles call for adding a very salty seasoning such as soy sauce. Not all foods with added salt taste salty. Some people add salt or a salty seasoning to their food at the table. Your preference for salt may decrease if you gradually add smaller amounts of salt or salty seasonings to your food over a period of time.

If you drink alcoholic beverages, do so in moderation.

Alcoholic beverages supply calories but few nutrients. Alcoholic beverages are harmful when consumed in excess, and some people should not drink at all. Excess alcohol alters judgment and

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can lead to dependency and a great many other serious health problems. Taking more than one drink per day for women or two drinks per day for men can raise the risk for motor vehicle crashes, other injuries, high blood pressure, stroke, violence, suicide, and certain types of cancer. Even one drink per day can slightly raise the risk of breast cancer. Alcohol consumption during pregnancy increases risk of birth defects. Too much alcohol may cause social and psychological problems, cirrhosis of the liver, inflammation of the pancreas, and damage to the brain and heart. Heavy drinkers also are at risk of malnutrition because alcohol contains calories that may substitute for those in nutritious foods. If you choose to drink alcoholic beverages, you should consume them only in moderation and with meals to slow alcohol absorption.

Use of dietary supplements

Food supplementation is a multimillion-dollar business. There are thousands of supplements on the market, most of which are easily accessible to soldiers. Supplements were traditionally defined as any product made of one or more of the essential nutrients such as vitamins or protein. That definition has to been broadened to include any product intended for ingestion as a supplement to the diet. Supplements include vitamins, minerals, herbs, amino acids, botanicals, as well as concentrates, metabolites, constituents, and extracts of these substances. Supplement product labels must include the words “dietary supplement”. Most products that meet this definition are not strictly regulated and are therefore not subject to any tight standards on makeup or claims. Your primary goal should be to always strive to obtain the nutrients you need from the foods in your diet. Eating a variety of foods on a regular basis is the most important step toward this goal. Supplement powders and bars can be a convenient and portable method for busy people to ensure they are consuming adequate supplies of the essential nutrients. Variety is still important because bars and powders are not always low fat, inexpensive, or easily digested by all. Supplementation should be part of a larger plan for an optimal performance diet not a replacement for poor habits and choices. Nor are supplements a substitute for regular exercise. There is no one magic pill or powder that you can take that will make you stronger, skinnier, or give you more energy. If you are considering supplements, you must weight the purported benefits against the potential risks (and cost) before deciding to use any product. Information is key. If a product makes claims that sound too good to be true, the claims probably are too good to be true.